

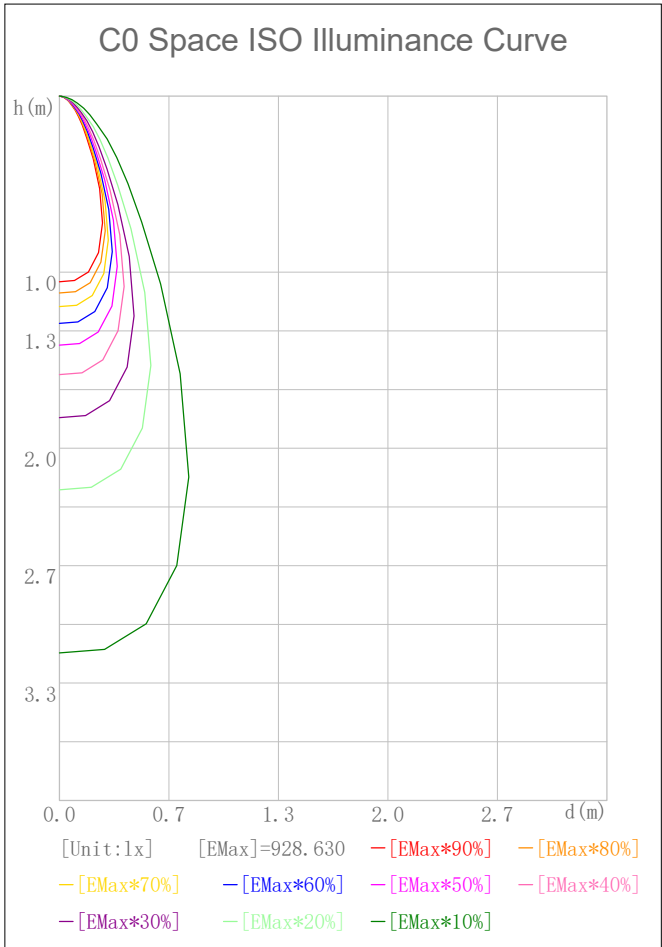
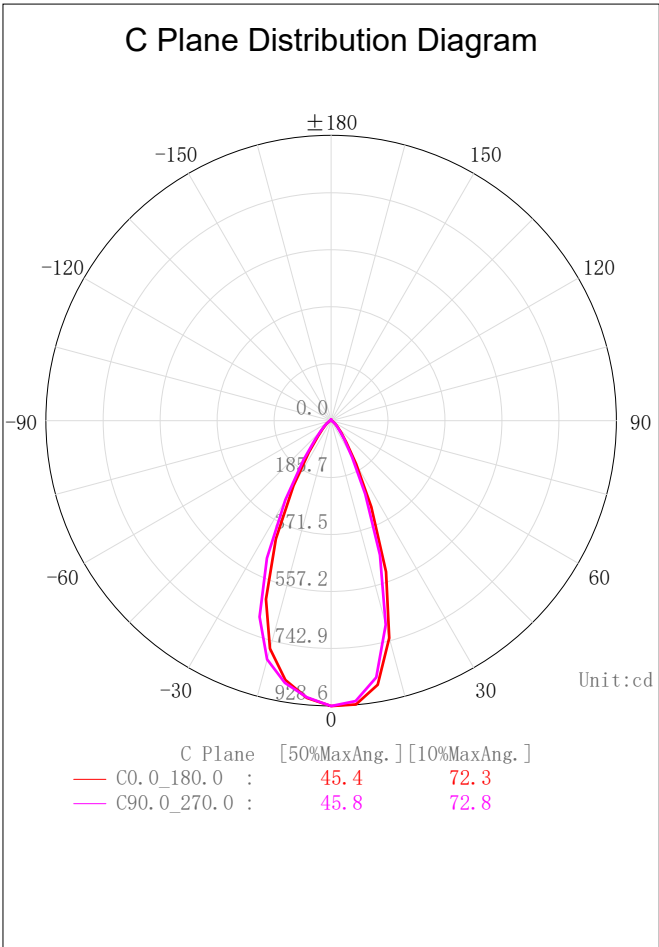
Indoor Luminaire Photometric Data

Description Information

Luminary Name: DL52-09-DW-02 1800-3000K RA90 36D		Lum. Catalog:	Test ID: 01
Lamp Name:		Lamp Catalog: LED	Test Date: 2022/08/18
Manufacture: Shenzhen Norming Lighting		Shld. Ang(°):	Test Machine:GON-2000
Test Lab: Quality Department		Frequency (Hz):	Lamp CCT (K): Ra:
Lum. Size (W*L*H):0.039m*0.039m*0.000m		Lum. Area (m2):0.001	Lum. W (kg): 0.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp. (°C): 25	Humidity(%):

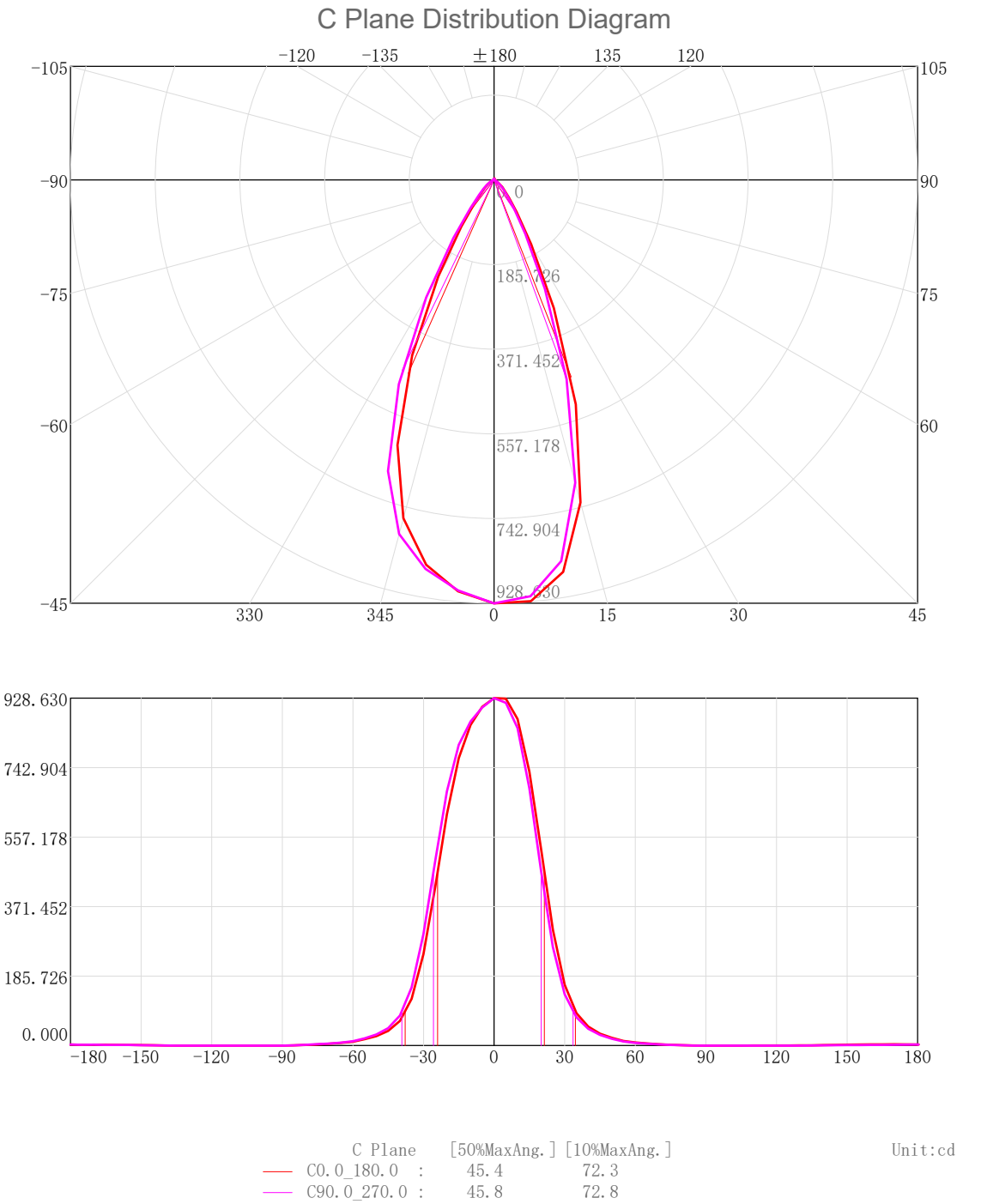
Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 596.340	Luminary Flux(lm): 596.339	Field Angle(10%Imax): 72.3(°)	
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 593.282lm 99.49%	
Rated Voltage(V):	Luminary EER(lm/W): 72.022	Up Lumens&Percent: 3.057lm 0.51%	
Tested Power(W): 8.280	Max. Candela(cd): 928.630	S/MH: C0_a180=0.740 C90_270=0.746	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf):239.9, 0.038	Beam Angle(50%Imax): 45.4(°)	ErP ϕ use(90°): 547.611lm	
Lamp Size (W*L*H):0.039m*0.039m*0.000m	Left=-24.0°, Right=21.4°	IRF(%): 354.860	



2D Plane Light Intensity Distribution Curve

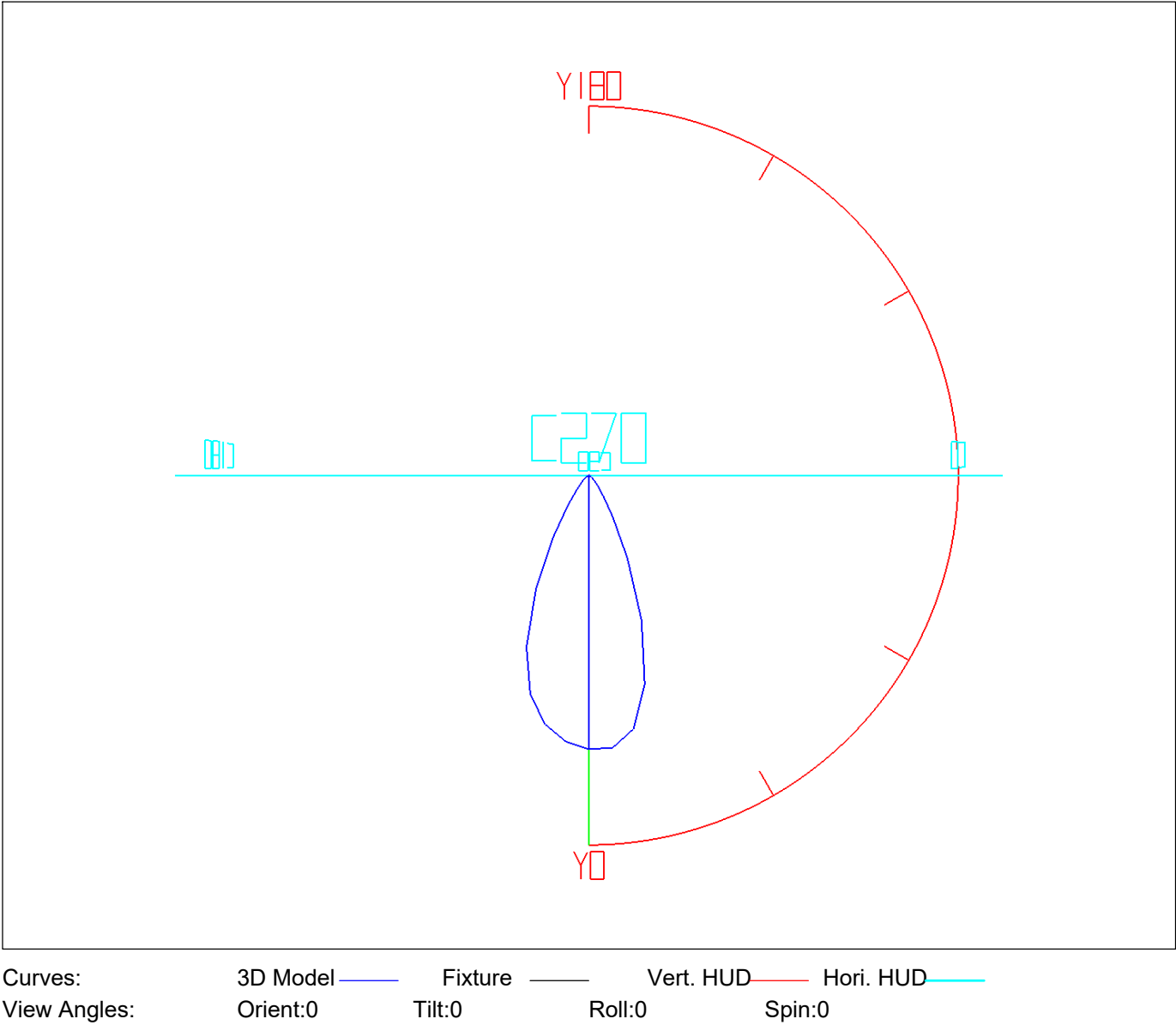
Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18



3D Light Intensity Distribution Modal

Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

3D Light Intensity Distribution Modal

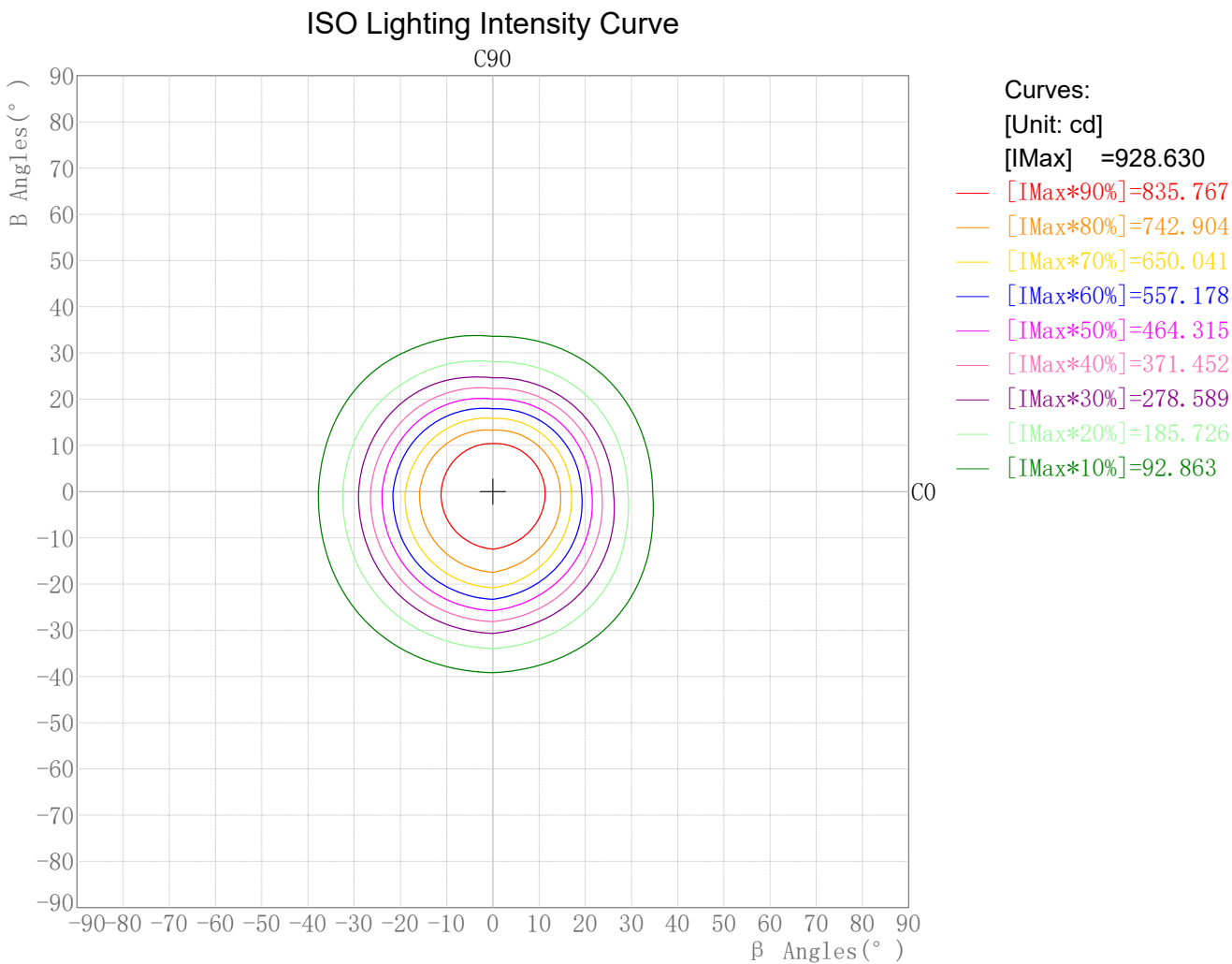


Zonal Flux Tabulation

Zone( γ )	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0. 0-5. 0	22. 02	22. 02	3. 69	3. 69
5. 0-10. 0	63. 48	85. 50	10. 64	14. 34
10. 0-15. 0	95. 46	180. 96	16. 01	30. 34
15. 0-20. 0	108. 77	289. 73	18. 24	48. 58
20. 0-25. 0	99. 10	388. 83	16. 62	65. 20
25. 0-30. 0	73. 85	462. 68	12. 38	77. 59
30. 0-35. 0	47. 31	510. 00	7. 93	85. 52
35. 0-40. 0	28. 60	538. 60	4. 80	90. 32
40. 0-45. 0	18. 02	556. 62	3. 02	93. 34
45. 0-50. 0	12. 18	568. 79	2. 04	95. 38
50. 0-55. 0	8. 41	577. 20	1. 41	96. 79
55. 0-60. 0	5. 69	582. 89	0. 95	97. 74
60. 0-65. 0	3. 93	586. 82	0. 66	98. 40
65. 0-70. 0	2. 79	589. 60	0. 47	98. 87
70. 0-75. 0	1. 86	591. 46	0. 31	99. 18
75. 0-80. 0	1. 13	592. 59	0. 19	99. 37
80. 0-85. 0	0. 55	593. 14	0. 09	99. 46
85. 0-90. 0	0. 14	593. 28	0. 02	99. 49
90. 0-95. 0	0. 00	593. 28	0. 00	99. 49
95. 0-100. 0	0. 00	593. 28	0. 00	99. 49
100. 0-105. 0	0. 00	593. 28	0. 00	99. 49
105. 0-110. 0	0. 01	593. 30	0. 00	99. 49
110. 0-115. 0	0. 04	593. 33	0. 01	99. 50
115. 0-120. 0	0. 05	593. 38	0. 01	99. 50
120. 0-125. 0	0. 04	593. 42	0. 01	99. 51
125. 0-130. 0	0. 05	593. 48	0. 01	99. 52
130. 0-135. 0	0. 10	593. 58	0. 02	99. 54
135. 0-140. 0	0. 20	593. 78	0. 03	99. 57
140. 0-145. 0	0. 32	594. 10	0. 05	99. 62
145. 0-150. 0	0. 42	594. 51	0. 07	99. 69
150. 0-155. 0	0. 46	594. 98	0. 08	99. 77
155. 0-160. 0	0. 44	595. 42	0. 07	99. 85
160. 0-165. 0	0. 38	595. 80	0. 06	99. 91
165. 0-170. 0	0. 29	596. 09	0. 05	99. 96
170. 0-175. 0	0. 19	596. 28	0. 03	99. 99
175. 0-180. 0	0. 06	596. 34	0. 01	100. 00

Rectangle ISO Lighting Intensity Diagram

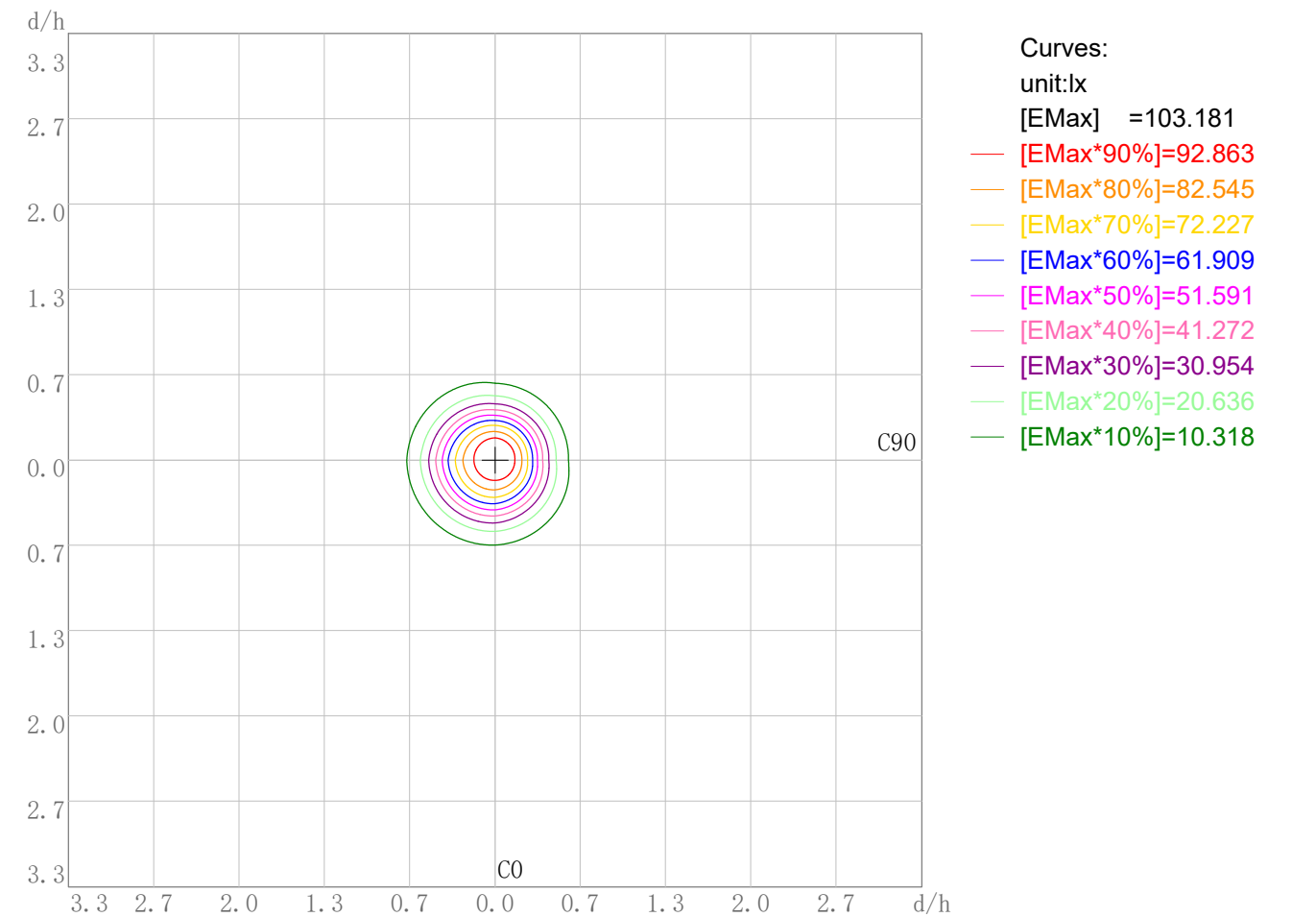
Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18



Plane ISO-Illuminance Diagram

Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

Plane ISO-Illuminance Curve



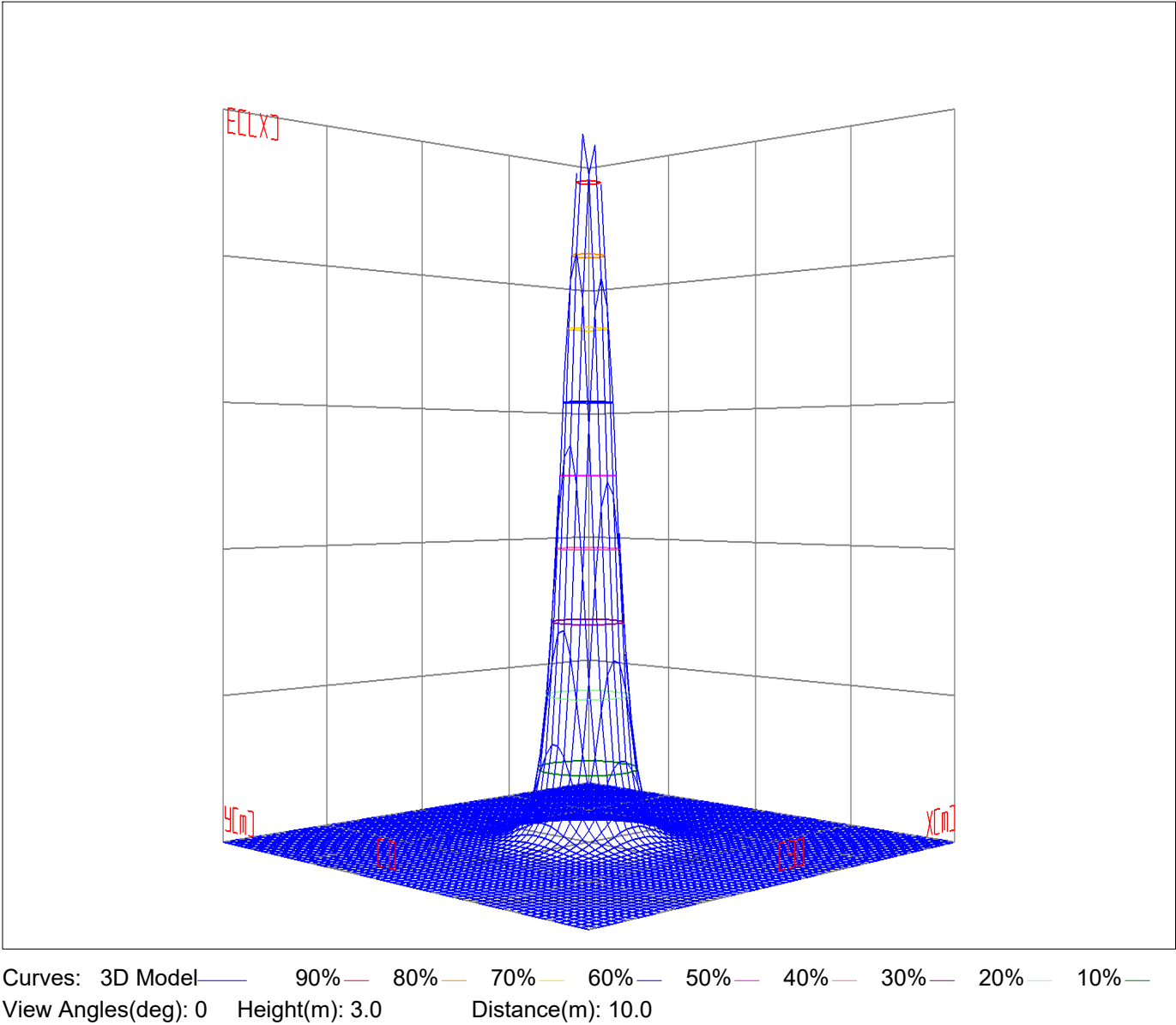
Working Plane Luminaire Mounting Height(m): 3.00  
Working Plane Maximum Illuminance(lx): 103.18  
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

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3D Plane ISO Illuminance Diagram

Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

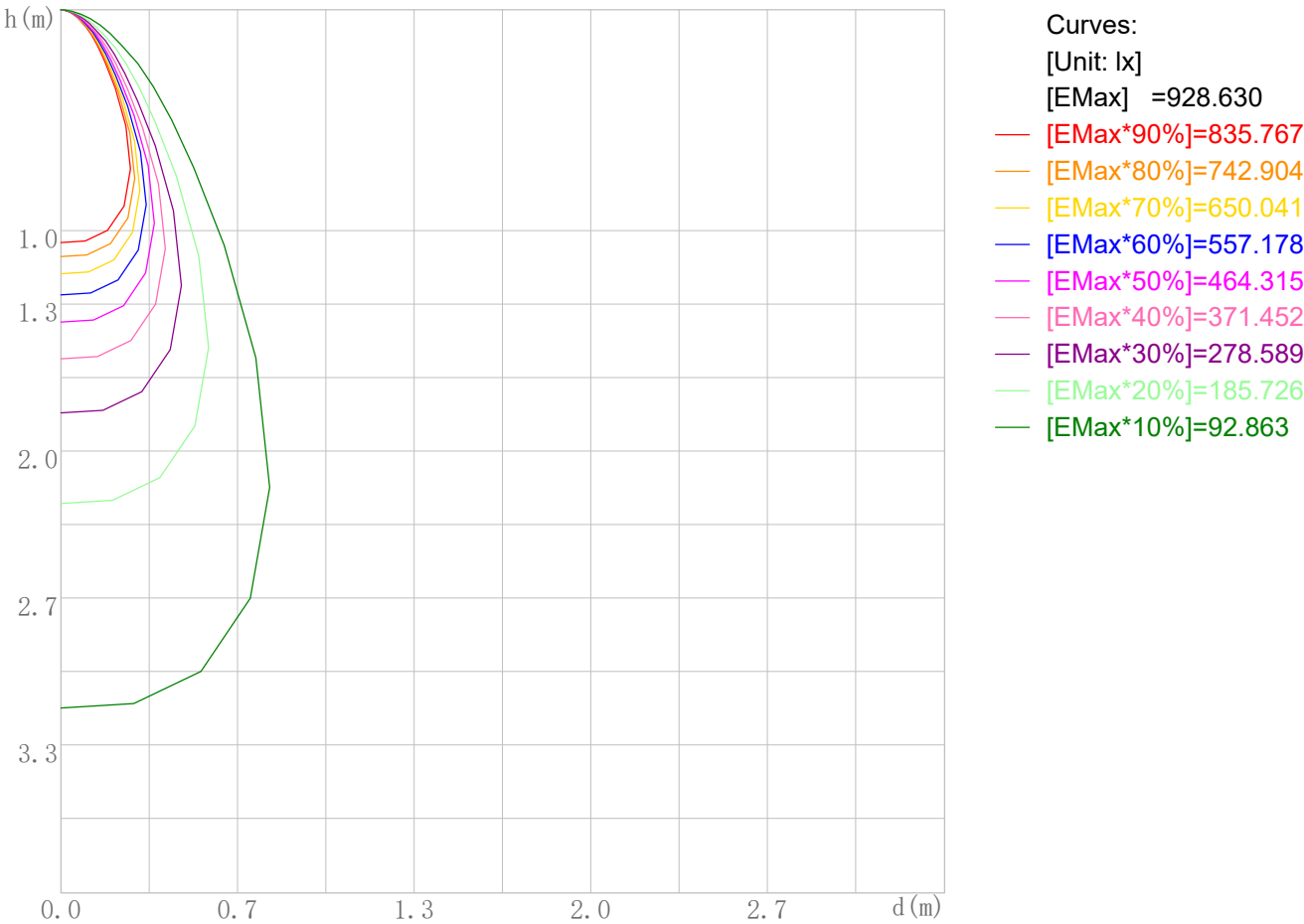
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

Space ISO Illuminance Curve

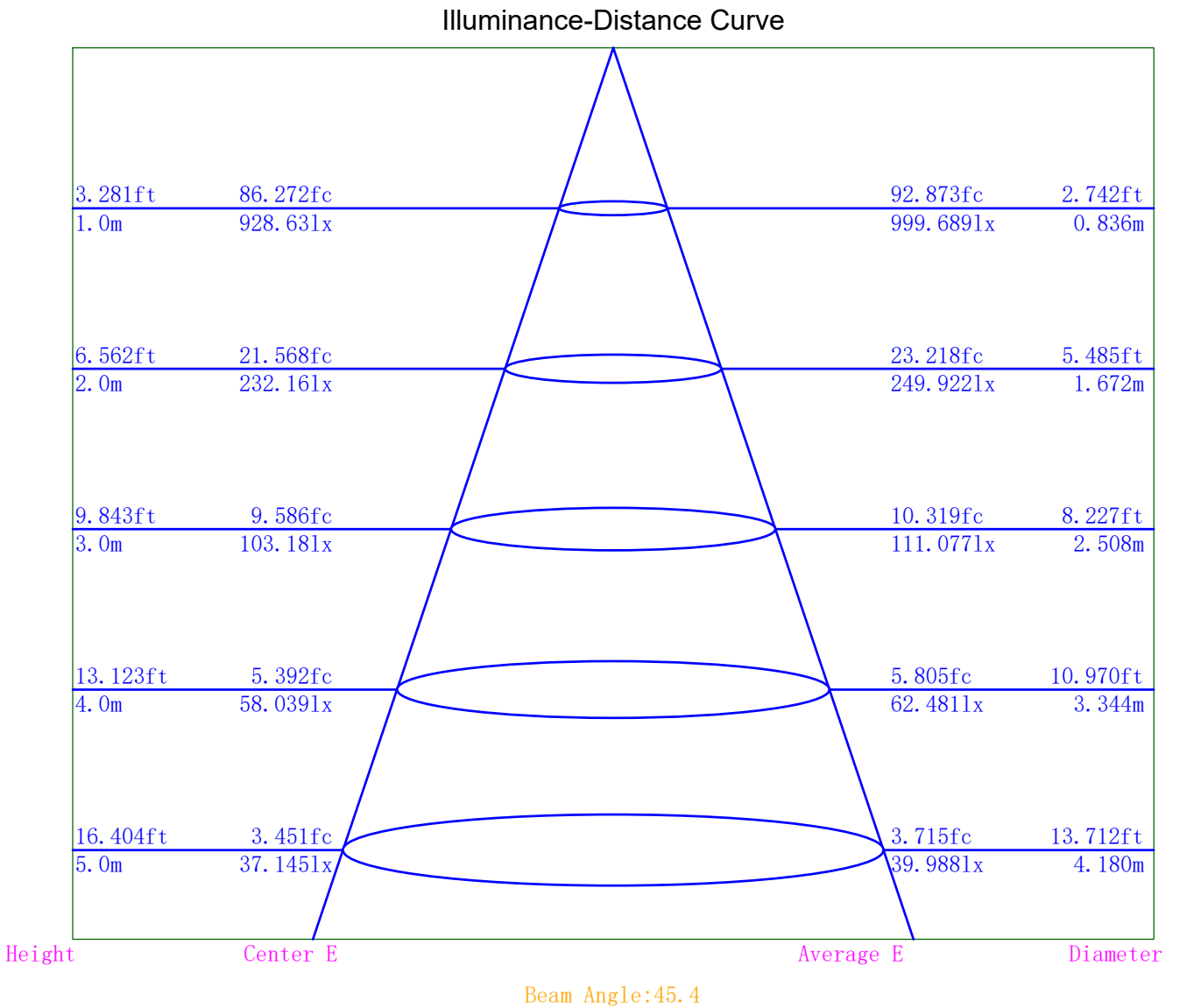


Space Plane Maximum Illuminance and @Angle:928.63lx,0.0deg  
Plane Maximum Lighting Intensity and @Angle:928.630cd,0deg



Illuminance-Distance Diagram

Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18



Indoor Luminance Limiting Curves

Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

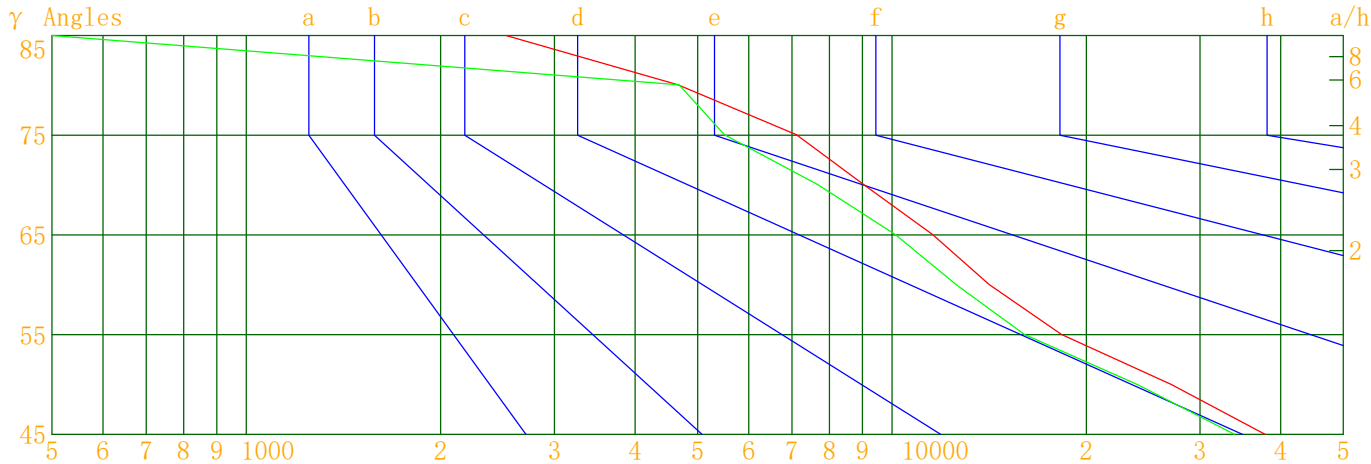
Glare Grade Table

GI	Quality	Using Illuminance							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E	a				2000	1000	500	<=300
			b	c	d	e	f	g	h

Luminance Table

Gama(deg)	45	50	55	60	65	70	75	80	85
C0	37836	27066	18303	14144	11560	9044	7112	4662	2526
C90	33927	23974	16032	12568	10124	7678	5502	4681	0

Luminance Limiting Curve



Luminous Size:

Length(m)=-0.039

Width(m)=-0.039

Height(m)=0.000

Area(m^2)=0.001195

Luminous Type:

Without Luminous Side

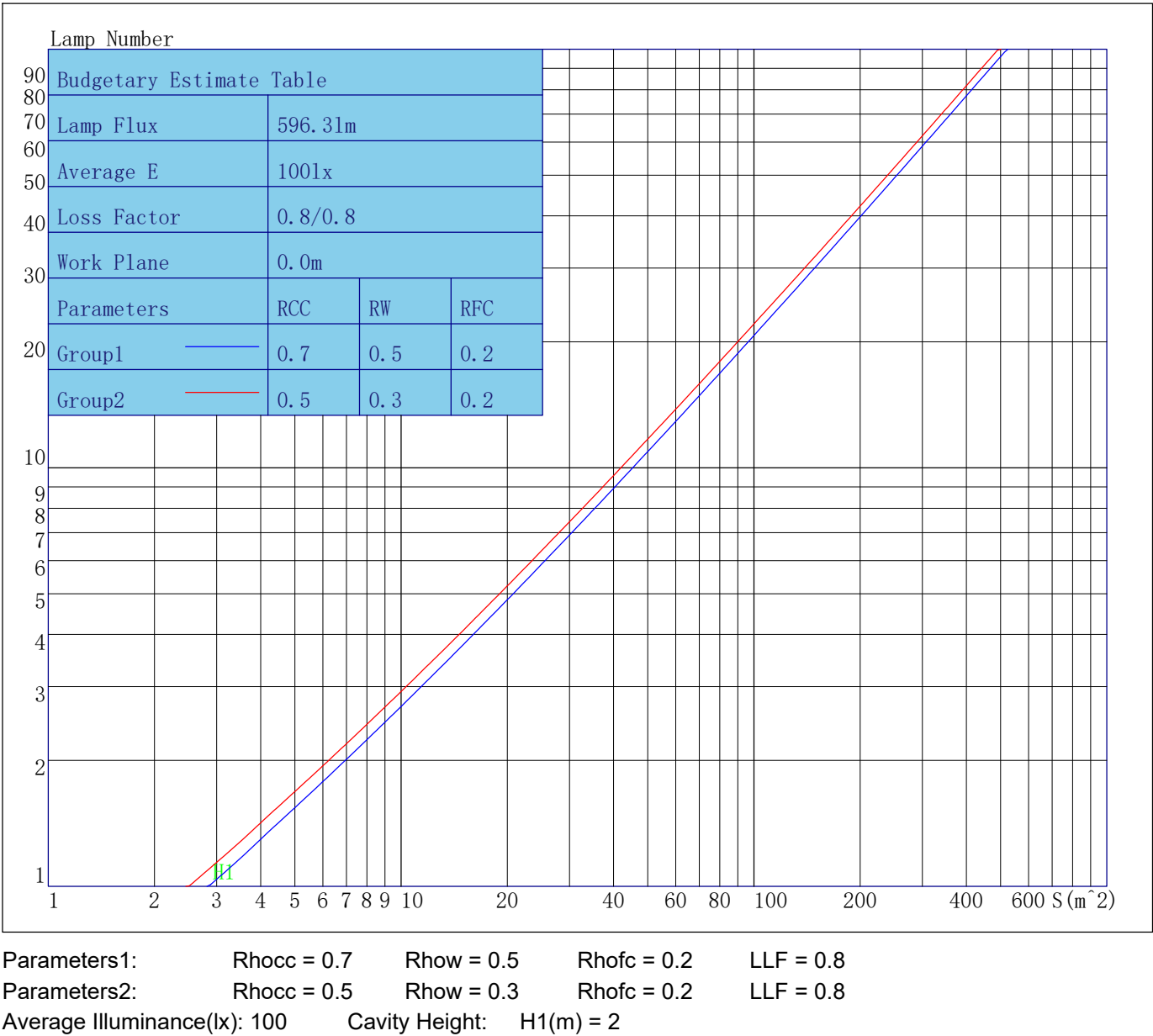
Luminous Curves:

C0-C180 Color:

C90-C270 Color:

Indoor Budgetary Estimate Table

Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/18



Indoor Coefficient of Utilization Table

Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

Coefficients of Utilization - Zonal Cavity Method																		
Coef.	Effective Floor Cavity Reflectance RFC=0.20																	
RhoCC (%)	80				70				50			30			10			0
RhoW (%)	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	Coefficient of Utilization(%)																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	99
1	113	111	108	106	111	109	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	92	91	89	87
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	82
4	98	91	86	81	96	90	85	81	87	83	80	85	82	79	84	81	78	77
5	94	86	80	76	92	85	79	76	83	78	75	81	77	74	80	76	73	72
6	89	81	75	71	88	80	75	71	78	74	70	77	73	70	76	72	69	68
7	85	77	71	67	84	76	70	67	75	70	66	73	69	66	72	68	66	64
8	82	73	67	63	80	72	67	63	71	66	63	70	66	62	69	65	62	61
9	78	69	64	60	77	69	63	60	68	63	59	67	62	59	66	62	59	58
10	75	66	60	57	74	65	60	57	65	60	56	64	59	56	63	59	56	55

Unified Glare Rating Table

Lum. Name:DL52-09-DW-02 1800-3000K RA90 36D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

Unified Glare Rating Table

Ceiling RCC	0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
Wall RW	0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
Floor RFC	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Room Size	Vewed crosswise					Vewed endwise				
X=2H    Y=2H	19.5	20.5	19.8	20.8	21.1	18.6	19.7	19.0	20.0	20.3
	19.6	20.5	19.9	20.8	21.2	18.7	19.6	19.1	20.0	20.4
	19.6	20.4	20.0	20.8	21.2	18.7	19.6	19.1	19.9	20.3
	19.5	20.3	19.9	20.7	21.1	18.7	19.5	19.1	19.8	20.2
	19.5	20.2	19.9	20.6	21.0	18.6	19.4	19.1	19.8	20.2
	19.4	20.1	19.9	20.5	21.0	18.6	19.3	19.0	19.7	20.1
X=4H    Y=2H	19.4	20.3	19.8	20.6	21.0	18.6	19.5	19.0	19.8	20.2
	19.6	20.3	20.0	20.7	21.1	18.8	19.5	19.2	19.9	20.3
	19.6	20.2	20.1	20.7	21.1	18.8	19.4	19.2	19.9	20.3
	19.6	20.1	20.1	20.6	21.1	18.8	19.3	19.3	19.8	20.3
	19.6	20.1	20.1	20.5	21.0	18.7	19.3	19.2	19.7	20.2
	19.5	20.0	20.0	20.5	20.9	18.7	19.1	19.2	19.6	20.1
X=8H    Y=4H	19.5	20.1	20.0	20.5	21.0	18.7	19.2	19.2	19.7	20.2
	19.6	20.0	20.1	20.5	21.0	18.7	19.2	19.3	19.7	20.2
	19.5	19.9	20.1	20.4	20.9	18.7	19.1	19.3	19.6	20.1
	19.5	19.8	20.0	20.3	20.9	18.7	19.0	19.2	19.5	20.1
X=12H    Y=4H	19.5	19.9	20.0	20.4	20.9	18.7	19.1	19.2	19.6	20.1
	19.5	19.9	20.1	20.4	20.9	18.7	19.1	19.2	19.5	20.1
	19.5	19.8	20.0	20.3	20.9	18.7	19.0	19.2	19.5	20.1
Variations with the objerver position at spacings										
S=1.0H	0.7/-0.8					0.7/-0.8				
S=1.5H	1.4/-1.6					1.4/-1.5				
S=2.0H	2.0/-2.4					2.1/-2.5				
Reduced UGR Table:										
Nordic Standard Table:	BK0					BK0				
Correction Value	0.6					0.6				

o the CIE Pub.117,data has been corrected,refers to the lamp’s lumens 8.2flm.

IES Indoor Report

Photometric Filename:DL52-09-DW-02 1800-3000K RA90 36D.IES

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Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
γ 0.0	928.63	928.63	928.63	928.63
γ 5.0	927.31	916.33	905.56	903.70
γ 10.0	872.97	848.68	856.97	866.33
γ 15.0	732.23	687.74	768.05	804.02
γ 20.0	523.73	465.10	618.83	679.70
γ 25.0	310.09	263.43	424.45	494.13
γ 30.0	162.74	137.18	244.41	297.88
γ 35.0	86.56	75.44	125.35	155.68
γ 40.0	51.11	45.17	66.08	80.27
γ 45.0	31.96	28.66	39.32	46.77
γ 50.0	20.78	18.41	25.42	29.70
γ 55.0	12.54	10.98	17.19	19.63
γ 60.0	8.45	7.51	10.42	11.77
γ 65.0	5.84	5.11	7.30	8.20
γ 70.0	3.69	3.14	5.17	5.59
γ 75.0	2.20	1.70	3.03	3.93
γ 80.0	0.97	0.97	2.01	2.11
γ 85.0	0.26	0.00	0.90	0.86
γ 90.0	0.00	0.00	0.00	0.01
γ 95.0	0.00	0.00	0.00	0.00
γ 100.0	0.00	0.00	0.00	0.00
γ 105.0	0.00	0.00	0.00	0.00
γ 110.0	0.22	0.00	0.00	0.00
γ 115.0	0.35	0.00	0.00	0.00
γ 120.0	0.42	0.00	0.00	0.00
γ 125.0	0.33	0.00	0.00	0.00
γ 130.0	0.66	0.00	0.00	0.00
γ 135.0	0.88	0.31	0.18	0.00
γ 140.0	1.47	0.72	0.35	0.37
γ 145.0	1.88	1.15	1.09	0.63
γ 150.0	2.45	1.52	1.47	1.14
γ 155.0	2.89	1.55	1.86	1.69
γ 160.0	3.33	1.69	2.19	1.70
γ 165.0	3.26	1.84	2.52	1.79
γ 170.0	3.55	2.03	2.42	2.39
γ 175.0	3.36	2.53	2.26	2.23
γ 180.0	2.76	2.76	2.76	2.76